

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Patent Application of

Conf. No.: 4547

YOSHIDA et al.

Atty. Ref.: LB-4255-5

Serial No. 10/688,994

TC/A.U.: 1795

Filed: October 21, 2003

Examiner: Trinh, T.

For: SOLAR CELL MODULE AND EDGE FACE SEALING MEMBER  
FOR SAME

\* \* \* \* \*

August 3, 2010

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**APPEAL BRIEF**

Sir:

Appellant hereby **appeals** to the Board of Patent Appeals and Interferences from  
the last decision of the Examiner.

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**(I) REAL PARTY IN INTEREST**

The real party in interest is Sharp Kabushiki Kaisha, a corporation of the country of Japan.

**(II) RELATED APPEALS AND INTERFERENCES**

The appellant, the undersigned, and the assignee are not aware of any related appeals, interferences, or judicial proceedings (past or present), which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

**(III) STATUS OF CLAIMS**

Claims 1 and 3-18 are pending and have been rejected. The rejections of claims 1 and 3-18 are being appealed. No claims have been substantively allowed.

**(IV) STATUS OF AMENDMENTS**

An Amendment was filed on May 11, 2010 after the Final Rejection of February 18, 2010. It was indicated in the Advisory Action issued June 1, 2010 that the amendment of May 11, 2010 was entered for purposes of appeal (the Claims Appendix includes the amendments of May 11, 2010).

**(V) SUMMARY OF CLAIMED SUBJECT MATTER**

A listing of the representative independent claims and each dependent claim argued separately is provided below including exemplary, but not limiting, reference(s) to reference numerals, Figure(s) and page and line number(s) of the specification.

The invention of the claims relates to an edge face sealing member, which holds and seals a solar cell module body within a frame along the entire edge portion thereof (e.g., Figs. 1-3, 6, paragraphs [0021], [0042]).

**Claim 1** relates to an edge face sealing member 1 of a solar cell module for sealing a gap between a solar cell module body 4 and a frame body 5 when the solar cell module body is captured within the frame body 5 (e.g., Figs. 1, 3, paragraphs [0021], [0042]),

the edge face sealing member 1 itself, which is an integral frame-like shape, is formed along with an outer shape of the solar cell module body 4 (e.g., Fig. 1, paragraph [0042]);

the edge face sealing member 1 is substantially C-shaped in cross section and/or substantially U-shaped in cross section (e.g., Fig. 2, paragraph [0043]);

the edge face sealing member 1 comprises:

an upper sealing region 11 abutting a front surface 41 of the solar cell module body 4 (e.g., Fig. 3(a), 4, paragraphs [0043], [0050]);

a lower sealing region 12 abutting a back surface 44 of the solar cell module body 4 (e.g., Fig. 3(a), 4, paragraphs [0043], [0050]); and

a side sealing region 13 abutting an edge face 45a of the solar cell module body 4 (e.g., Figs. 3(a), 4, 7, paragraphs [0043], [0050]);

the upper sealing region 11 and the lower sealing region 12 being disposed so as to open to the outside therefrom at either side from edge portions of the side sealing region (e.g., Figs. 2, 4, paragraphs [0044], [0050]);

wherein tip portions 11b, 12b, of the upper sealing region and the lower sealing region are formed in a bent fashion so as to be inclined toward a groove recess, and wherein a distance between the tip portions 11b, 12b, is substantially the same as or is less than a thickness of the edge portion of the solar cell module body 4 (e.g., Figs. 2, 3(a), 4, paragraphs [0045]-[0047]); and

wherein when the edge face sealing member 1 is captured within the frame body 5 while the solar cell module body 4 is captured within the edge face sealing member 1 along an entire edge portion perimeter thereof, the upper sealing region 11, the lower sealing region 12 and the side sealing region 13 are coming into intimate contact with the solar cell module body 4, and the edge face sealing member 1 seals the entire edge portion perimeter of the solar cell module body 4 (e.g., Figs. 3(a)-3(b), 6, paragraph [0048]).

**Claim 14** relates to a solar cell module 6 (e.g., Figs. 1-3, 6) comprising:

a solar cell module body 4, a frame body 5 that captures the solar cell module body 4, and an edge face sealing member 1 for sealing a gap between the solar cell module body 4 and the frame body 5 (e.g., Figs. 1-3, 6, paragraphs [0021], [0042]), wherein:

the edge face sealing member 1 itself, which is an integral frame-like shape, is formed along with an outer shape of the solar cell module body 4 (e.g., Fig. 1, paragraph [0042]);



the edge face sealing member 1 is substantially C-shaped in cross section and/or substantially U-shaped in cross section (e.g., Fig. 2, paragraph [0043]);

the edge face sealing member 1 comprises:

an upper sealing region 11 abutting a front surface 41 of the solar cell module body 4 (e.g., Fig. 3(a), 4, paragraphs [0043], [0050]);

a lower sealing region 12 abutting a back surface 44 of the solar cell module body 4 (e.g., Fig. 3(a), 4, paragraphs [0043], [0050]); and

a side sealing region 13 abutting an edge face 45a of the solar cell module body 4 (e.g., Figs. 3(a), 4, 7, paragraphs [0043], [0050]);

the upper sealing region 11 and the lower sealing region 12 being disposed so as to open to the outside therefrom at either side from edge portions of the side sealing region (e.g., Figs. 2, 4, paragraphs [0044], [0050]);

wherein tip portions 11b, 12b of the upper sealing region 11 and the lower sealing region 12 are formed in a bent fashion so as to be inclined toward a groove recess, and wherein a distance between the tip portions 11b, 12b, is substantially the same as or is less than a thickness of the edge portion of the solar cell module body 4 (e.g., Figs. 2, 3(a), 4, paragraphs [0045]-[0047]); and

wherein when the edge face sealing member 1 is captured within the frame body 5 while the solar cell module body 4 is captured within the edge face sealing member 1 along an entire edge portion perimeter thereof, the upper sealing region 11, the lower sealing region 12 and the side sealing region 13 are coming into intimate contact with the solar cell module body 4, and the edge face sealing member 1 seals the entire edge

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portion perimeter of the solar cell module body 4 (e.g., Figs. 3(a)-3(b), 6, paragraph [0048]).

**(VI) GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

- (i) Whether claims 1 and 14 are unpatentable under 35 U.S.C. §103(a) over Ishikawa et al. (US 5,509,973) in view of Meadows (US 3,455,080).
- (ii) Whether claims 4-6 and 16-17 are unpatentable under 35 U.S.C. §103(a) over Ishikawa et al. (US 5,509,973) in view of Meadows (US 3,455,080).
- (iii) Whether claim 3 is unpatentable under 35 U.S.C. §103(a) over Ishikawa et al. (US 5,509,973) in view of Meadows (US 3,455,080) and further in view of either Stein et al. (US 5,071,491) or Yoshida et al. (JP 2000-297509).
- (iv) Whether claims 7 and 15 are unpatentable under 35 U.S.C. §103(a) over Ishikawa et al. (US 5,509,973) in view of Meadows (US 3,455,080) and further in view of Kataoka et al. (US 6,320,115).
- (v) Whether claims 8-10 are unpatentable under 35 U.S.C. §103(a) over Ishikawa et al. (US 5,509,973) in view of Meadows (US 3,455,080) and further in view of Kataoka et al. (US 6,320,115) and Kirchmann et al. (US 6,073,936).
- (vi) Whether claims 11-13 are unpatentable under 35 U.S.C. §103(a) over Ishikawa et al. (US 5,509,973) in view of Meadows (US 3,455,080) and further in view of Kataoka et al. (US 6,320,115), Kirchmann et al. (US 6,073,936) and Kotani et al. (US 5,414,030).
- (vii) Whether claim 18 is unpatentable under 35 U.S.C. §103(a) over Ishikawa et al. (US 5,509,973) in view of Meadows (US 3,455,080) and further in view of Stein et al. (US 5,071,491).

**(VII) ARGUMENT**

(i) Whether claims 1 and 14 are unpatentable under 35 U.S.C. §103(a) over Ishikawa et al. (US 5,509,973) in view of Meadows (US 3,455,080).

The USPTO has the burden under 35 U.S.C. Section 103 of establishing a prima facie case of obviousness. *In re Piasecki*, 745, F.2d 1468, 1471-72, 223 USPQ 785, 787-88 (Fed. Cir. 1984). It can satisfy this burden only by showing that some objective teaching in the prior art, or that knowledge generally available to one of ordinary skill in the art, would have led that individual to combine the relevant teachings of the references to arrive at the claimed invention. *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Before the USPTO may combine the disclosures of the references in order to establish a prima facie case of obviousness, there must be some suggestion or rationale for doing so. *In re Jones*, 958 F.2d 347 (Fed. Cir. 1992). Prior art references can be combined to render an invention obvious only if there is some apparent reason, either in the references themselves or in the knowledge generally available to one skilled in the art, to combine them. *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 82 USPQ2d 1385 (2007). Even assuming, *arguendo*, that a given combination of references is proper, the combination of references must in any event disclose the features of the claimed invention in order to render it obvious.

Ishikawa/Meadows does not teach or suggest an edge face sealing member that comprises a single member having a frame-like shape.

Regarding claim 1, and in response to Appellant's argument filed with the response of November 12, 2009, that Ishikawa's edge face sealing member consists of separate members 5 which capture the four edges of the solar cell, the Examiner stated

that “there is nowhere in Applicant’s specification defining integral consists of one member. On the contrary, the integral frame-like shape edge face sealing shown in Fig. 1 includes four pieces connected together to form a frame (see the separating line at each corner of the frame)”. Moreover, the Examiner provided a definition for “integral” as “composed of integral parts”, and stated that Ishikawa teaches the grading channel members 5 surrounding the solar cell body 4 to form a frame-like shape as seen in Fig. 5, wherein each member fits to an edge of the solar cell body 4, see p. 14 of the Office Action of February 18, 2010.

First, the line at each corner in Fig. 1 of the instant specification, describes an edge that is formed by which a plurality of surfaces intersect in three-dimensional space. This line describing the edge of each section does not represent that the four sections are separate and this is within the scope of ordinary skill for a person skilled in the art.

Second, in the definition provided by the Examiner, “integral” is defined as essential to completeness or lacking nothing essential. Thus, “integral” means one member, and if it applied to the invention of claim 1, the edge face sealing member should be construed as one frame-like shape member.

Therefore, the edge face sealing member of the invention of claim 1 consists of one member and “integral” is utilized as a word to represent it. Also, this is repeatedly recited in the specification. For example, paragraph [0061] recites “...one or more edge face sealing members, frame-like in shape and ...is or are prepared; such edge face sealing member or members capturing at least one of the solar cell module body or bodies along substantially the entire edge portion perimeter thereof, and with these in this state, these being captured within at least one of the frame body or bodies.”

That is to say, the specification clearly recites that “the edge face sealing member, frame-like in shape, is prepared”; “the edge face sealing member is capturing the solar cell module body along an entire edge portion perimeter thereof”; and “with these in this state, the edge face sealing member is captured within the frame”.

In view of this, even if the edge face sealing member is not captured within the frame body, the edge face sealing member is clearly capturing the solar cell module body along an entire edge portion perimeter thereof. This is realized since the edge face sealing member is preformed in the frame-like shape of **one** member.

In contrast, in Ishikawa or Meadows, four sealing members are inserted along each of four sides of the solar cell module or glass (see Fig. 5 in Ishikawa); hence the resulting structure must produce gaps between the adjacent sealing members. Thus, the structure of Ishikawa or Meadows is not the sealing member capturing the solar cell module body along the entire edge portion perimeter thereof, as required by claim 1.

Furthermore, paragraph [0018] of the instant specification recites the problem of conventional art as follows: “Moreover, there has also been the problem that because waterproofing member 61 is bent unnaturally at the corner portion(s) of frame body 5, it has been necessary to have another waterproofing member made available for such portion(s), and it has been difficult to adequately ensure water tightness at especially the corner portion(s)”, emphasis added.

The invention of claim 1 provides the advantageous effects, as recited in paragraph [0061], as follows: “Because a construction is thus adopted in which frame-shaped, integral-type edge face sealing member(s) capture solar cell module body or bodies along substantially the entire edge portion perimeter thereof, definitive sealing of

solar cell module body or bodies is permitted, permitting definitive prevention of entry by water”, emphasis added.

As stated above, the invention of claim 1 has these distinct advantageous effects because the edge face sealing member is preformed in the frame-like shape of one member and there are no gaps at the corner portions. Therefore, the edge face sealing member is clearly preformed in the frame-like shape of one member.

Neither Ishikawa nor Meadows offers such distinct effects since the edge face sealing member disclosed therein is not preformed in the frame-like shape of one member. Accordingly, neither Ishikawa nor Meadows suggests such distinct effects of the invention of claim 1.

The edge face sealing members 5 in Ishikawa are multiple separate members, each capturing a side edge of the glass panel. Moreover, the language of claim 1 recites “the edge face sealing member itself, which is an integral frame-like shape”. An object that is shaped as a linear member, e.g., 5 in Fig. 5 of Ishikawa is not shaped as a frame, e.g., “an enclosing border”, according to a Webster’s definition.

In addition, even though Meadows teaches that the member 10 provides sealing of the entire edge portion perimeter of the glass pane 27, however, member 10 is merely a frame (which has to cover the entire periphery of the enclosed glass pane). One of ordinary skill in the art would not have looked at the shape of a frame to modify the shape of an edge face sealing member that is fitted inside the frame, as was suggested by the Examiner, see p. 8 of the Final Office Action of February 18, 2010.

Finally, even though Figs. 6 and 7 in Ishikawa appear to show that the tongues of the members 5 are completely flattened, Appellant submits that the structure of the frame

including frame members 6 and 7 is such that when the member 5 is held by the frame members, there is no pressure to cause the tongues to completely flatten. For example, Fig. 3 in Ishikawa shows the shape of the edge face sealing member 5 when member 5 is within the frame. Even though there is some elastic deformation when the solar panel 4 is fitted into the members 5, the tongues of members 5 are not completely flattened even though the members 5 are within the frame.

In response to Appellant's argument filed with the Response of May 11 5, 2010, that Meadows discloses four sealing members being inserted along each of four sides of the solar cell module, thereby producing gaps between the adjacent sealing members, the Examiner stated that while Ishikawa does not teach the arrangement of the sealing pieces like Appellant's claimed invention (or sealing the entire edge portion perimeter), Ishikawa teaches arranging the sealing pieces to surround a glass panel just like Appellant's disclosed arrangement (or sealing the entire edge portion perimeter) to prevent the entrance of foreign substances, and that it would have been obvious to arrange the sealing pieces of Ishikawa to seal the entire edge perimeter as taught by Meadows to take the advantage of preventing the entrance of foreign substances, see the Advisory Action of June 1, 2010.

Even though in Ishikawa the four separate pieces surround the glass panel (similarly with the invention of claim 1), however, the four separate pieces do not comprise an integral frame-like shaped member, as required by claim 1. It appears that the Examiner is asserting that it would have been obvious to replace the four separate pieces (each along a straight edge of the glass panel) with a single member surrounding the glass panel following the teaching of Meadows. However, as can be seen in Fig. 4 of



Meadows, the member that provides sealing along the entire edge portion perimeter of the glass panel is not a single member, but consists of at least two members, a U-shaped lower member and a straight member 30 that fits with the lower member via angle members 31 and 32. In other words, even though Meadows teaches covering the entire perimeter of the glass panel, he does not teach or suggest covering the entire perimeter with a single-piece edge face sealing member.

Moreover, in the Advisory Action, the Examiner stated that “both Ishikawa and Meadows disclose frame-like shape sealing (e.g., also what Applicants claim), wherein Meadows is relied upon for teaching the arrangement of the sealing pieces and how to form the frame-like shape with the advantage of preventing entrance of foreign substance which is similar to Ishikawa’s invention as Ishikawa describes the edge sealing as ‘gasket’”, emphasis added.

Unlike the Examiner’s assertion, Applicant does not merely claim “frame-like shape sealing”. Instead, claim 1 recites “the edge face sealing member itself, which is an integral frame-like shape, is formed along with an outer shape of the solar cell module body”. In other words, claim 1 requires that it is the edge face sealing member itself that causes frame-like shape sealing. This is not taught by either Ishikawa (showing four separate straight members) or Meadows (showing a U-shaped member and a separate straight member fitting into the U-shaped member). Again, the claimed feature is not the prevention of entrance of foreign substances but the edge face sealing member being a single member.

For at least the above reasons, claim 1 is allowable. Claim 14 includes limitations similar to those of claim 1 and is also allowable.

(ii) Whether claims 4-6 and 16-17 are unpatentable under 35 U.S.C. §103(a) over Ishikawa et al. (US 5,509,973) in view of Meadows (US 3,455,080).

Claims 4-6 and 16-17 are dependent on claim 1, and are in condition for allowance at least because the claims form which they depend (claim 1) is in condition for allowance.

(iii) Whether claim 3 is unpatentable under 35 U.S.C. §103(a) over Ishikawa et al. (US 5,509,973) in view of Meadows (US 3,455,080) and further in view of either Stein et al. (US 5,071,491) or Yoshida et al. (JP 2000-297509).

Claim 3 is dependent on claim 1, and is in condition for allowance at least because the claim form which it depends (claim 1) is in condition for allowance.

(iv) Whether claims 7 and 15 are unpatentable under 35 U.S.C. §103(a) over Ishikawa et al. (US 5,509,973) in view of Meadows (US 3,455,080) and further in view of Kataoka et al. (US 6,320,115).

Claims 7 and 15 are dependent on claim 1 or 14, and are in condition for allowance at least because the claims form which they depend (claim 1 or 14) is in condition for allowance.

(v) Whether claims 8-10 are unpatentable under 35 U.S.C. §103(a) over Ishikawa et al. (US 5,509,973) in view of Meadows (US 3,455,080) and further in view of Kataoka et al. (US 6,320,115) and Kirchmann et al. (US 6,073,936).

Claims 8-10 are dependent on claim 1, and are in condition for allowance at least because the claims form which they depend (claim 1) is in condition for allowance.

(vi) Whether claims 11-13 are unpatentable under 35 U.S.C. §103(a) over Ishikawa et al. (US 5,509,973) in view of Meadows (US 3,455,080) and further in view of Kataoka et al. (US 6,320,115), Kirchmann et al. (US 6,073,936) and Kotani et al. (US 5,414,030).

Claims 11-13 are dependent on claim 1, and are in condition for allowance at least because the claims form which they depend (claim 1) is in condition for allowance.

(vii) Whether claim 18 is unpatentable under 35 U.S.C. §103(a) over Ishikawa et al. (US 5,509,973) in view of Meadows (US 3,455,080) and further in view of Stein et al. (US 5,071,491).

Claim 18 is dependent on claim 1, and is in condition for allowance at least because the claim form which it depends (claim 1) is in condition for allowance.

**CONCLUSION**

In conclusion it is believed that the application is in clear condition for allowance; therefore, early reversal of the Final Rejection and passage of the subject application to issue are earnestly solicited.

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

By:           /Leonidas Boutsikaris/            
          Leonidas Boutsikaris  
          Reg. No. 61,377

LB:tlm  
901 North Glebe Road, 11th Floor  
Arlington, VA 22203-1808  
Telephone: (703) 816-4000  
Facsimile: (703) 816-4100

**(VIII)        CLAIMS APPENDIX**

1. An edge face sealing member of a solar cell module for sealing a gap between a solar cell module body and a frame body when the solar cell module body is captured within the frame body,

the edge face sealing member itself, which is an integral frame-like shape, is formed along with an outer shape of the solar cell module body;

the edge face sealing member is substantially C-shaped in cross section and/or substantially U-shaped in cross section;

the edge face sealing member comprises:

an upper sealing region abutting a front surface of the solar cell module body;

a lower sealing region abutting a back surface of the solar cell module body; and

a side sealing region abutting an edge face of the solar cell module body;

the upper sealing region and the lower sealing region being disposed so as to open to the outside therefrom at either side from edge portions of the side sealing region;

wherein tip portions of the upper sealing region and the lower sealing region are formed in a bent fashion so as to be inclined toward a groove recess, and wherein a distance between the tip portions is substantially the same as or is less than a thickness of the edge portion of the solar cell module body; and

wherein when the edge face sealing member is captured within the frame body while the solar cell module body is captured within the edge face sealing member along an entire edge portion perimeter thereof, the upper sealing region, the lower sealing region and the side sealing region are coming into intimate contact with the solar cell

module body, and the edge face sealing member seals the entire edge portion perimeter of the solar cell module body.

3. An edge face sealing member of a solar cell module according to claim 1 wherein the lower sealing region is longer than the upper sealing region.

4. An edge face sealing member of a solar cell module according to claim 1 wherein:

one surface of the upper sealing region and one surface of the lower sealing region face each other; and

a projection is formed on each of facing surfaces of the upper sealing region and the lower sealing region.

5. An edge face sealing member of a solar cell module according to claim 4 wherein the projection comprises an single-rib or multiple-rib regions formed in parallel fashion with respect to an perimeter edge portion of the solar cell module body.

6. An edge face sealing member of a solar cell module according to claim 4 wherein tip portions of the lower sealing region and the upper sealing region are disposed in inclined fashion at respectively facing sealing region surfaces.

7. An edge face sealing member of a solar cell module according to claim 1 wherein the solar cell module body is of integrally laminated superstrate construction

such that the following layers are laminated in order over a light-receiving glass surface constituting a front surface:

- a light-receiving-surface sealing resin layer comprising ethylene vinyl acetate;
- a solar cell;
- a back-surface sealing resin layer comprising ethylene vinyl acetate; and
- a weather-resistant back-surface sealing film.

8. An edge face sealing member of a solar cell module according to claim 7 wherein a material making up the edge face sealing member is elastomer resin.

9. An edge face sealing member of a solar cell module according to claim 8 wherein the elastomer resin comprises a polypropylenic and/or polystyrenic resin.

10. An edge face sealing member of a solar cell module according to claim 9 wherein:

- the polypropylenic elastomer resin is a PP-EPDM copolymer; and
- the polystyrenic elastomer resin is polystyrene - isoprene copolymer.

11. An edge face sealing member of a solar cell module according to claim 9 wherein the elastomer resin comprises an additive of porous structure preventing yellowing of the sealing resin layer.

12. An edge face sealing member of a solar cell module according to claim 11 wherein the additive is magnesium silicate.

13. An edge face sealing member of a solar cell module according to claim 12 wherein the additive further comprises an ultraviolet-resistant agent.

14. A solar cell module comprising:  
a solar cell module body, a frame body that captures the solar cell module body, and an edge face sealing member for sealing a gap between the solar cell module body and the frame body, wherein:

the edge face sealing member itself, which is an integral frame-like shape, is formed along with an outer shape of the solar cell module body;

the edge face sealing member is substantially C-shaped in cross section and/or substantially U-shaped in cross section;

the edge face sealing member comprises:

an upper sealing region abutting a front surface of the solar cell module body;

a lower sealing region abutting a back surface of the solar cell module body; and

a side sealing region abutting an edge face of the solar cell module body;

the upper sealing region and the lower sealing region being disposed so as to open to the outside therefrom at either side from edge portions of the side sealing region;

wherein tip portions of the upper sealing region and the lower sealing region are formed in a bent fashion so as to be inclined toward a groove recess, and wherein a



distance between the tip portions is substantially the same as or is less than a thickness of the edge portion of the solar cell module body; and

wherein when the edge face sealing member is captured within the frame body while the solar cell module body is captured within the edge face sealing member along an entire edge portion perimeter thereof, the upper sealing region, the lower sealing region and the side sealing region are coming into intimate contact with the solar cell module body, and the edge face sealing member seals the entire edge portion perimeter of the solar cell module body.

15. A solar cell module according to claim 14 wherein the solar cell module body is of integrally laminated superstrate construction such that laminated in order over a light-receiving glass surface constituting a front surface there is:

- a light-receiving-surface sealing resin layer comprising ethylene vinyl acetate;
- a solar cell;
- a back-surface sealing resin layer comprising ethylene vinyl acetate; and
- a weather-resistant back-surface sealing film.

16. An edge face sealing member of a solar cell module of claim 1, wherein the edge portions of the side sealing region are curved.

17. An edge face sealing member of a solar cell module of claim 1, wherein the edge portions of the side sealing region are cut diagonally so as to produce chamfered surfaces.

18. The solar cell module edge face sealing member structure of claim 1, comprising at least one projection extending inwardly from an interior surface of each of the upper sealing region and the lower sealing region, and wherein the respective tip portions extend further inwardly than do the respective projections when the solar cell module body and edge face sealing member are in a state where they have not yet been provided in the frame body.

**(IX) EVIDENCE APPENDIX**

None.

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**(X) RELATED PROCEEDINGS APPENDIX**

None.